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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/658,190	09/10/2003	Satoru Adachi	9683/259	3245

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EXAMINER	
COUSO, YON JUNG	
ART UNIT	PAPER NUMBER
2624	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/658,190	ADACHI ET AL.	
	Examiner	Art Unit	
	Yon Couso	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *1-12* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. Applicant's election without traverse of Group II claims 13-20 in the reply filed on January 22, 2007 is acknowledged.

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 19, and 20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 19, and 20 are directed to computer program product. Claims 37-39 are drawn to descriptive material NOT claimed as residing on a computer readable medium. Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized.

Computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs are not physical "things." They are neither computer components nor statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer

element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. Accordingly, it is important to distinguish claims that define descriptive material per se from claims that define statutory inventions.

Computer programs are often recited as part of a claim. Office personnel should determine whether the computer program is being claimed as part of an otherwise statutory manufacture or machine. In such a case, the claim remains statutory irrespective of the fact that a computer program is included in the claim. The same result occurs when a computer program is used in a computerized process where the computer executes the instructions set forth in the computer program. Only when the claimed invention taken as a whole is directed to a mere program listing, i.e., to only its description or expression, is it descriptive material per se and hence nonstatutory.

Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process and Office personnel should treat a claim for a computer program, without the computer-readable medium needed to realize the computer program's functionality, as nonstatutory functional descriptive material.

When a computer program is claimed in a process where the computer is executing the computer program's instructions, Office personnel should treat the claim as a process claim. See paragraph IV.B.2(b). When a computer program is recited in conjunction with a physical structure, such as a computer memory, Office personnel should treat the claim as a product claim. See paragraph IV.B.2(a).

In contrast, a claimed computer-readable medium encoded with data structure defines structural interrelationships between the data structure and the computer software and hardware components which permits the data structure 's functionality to be realized, and is thus statutory (MPEP 2106.IV.B.1(a)).

3. Claims 13, 14, 17, and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13, lines 12-14 "a flag indicating whether use is eliminated of every image previously stored in the image storage means" is vague and indefinite as to exactly what the flag indicates.

Claims 17 and 19 have the same problem.

Claim 14 depends from an indefinite antecedent claim.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 13-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Wiegand "Text of Final Committee Draft of Joint Video Specification".

As for claim 13, Wiegand teaches a video encoding apparatus comprising: input means for effecting input of an image as a target for encoding (3.29); encoding means

for encoding the image to generate encoded data (3.31); image storage means for storing an image regenerated after encoded by the encoding means (8.3.6.5); and buffer management means for managing every image stored in the image storage means (8.3.6.5), wherein, on the occasion of encoding an image encoded without reference to any other image, the buffer management means outputs along with the encoded data, a flag indicating whether use is eliminated of every image previously stored in the image storage means (8.3.6.5; 8.3.6.7.1; and 8.3.6.7.6).

As to claim 14, Wiegand teaches that the encoding means implements backward interframe prediction from a temporally subsequent frame, and wherein, on the occasion of encoding the image encoded without reference to any other image, the buffer management means deletes a decoded image of every temporally subsequent frame previously stored in the image storage means (8.3.6.5; 8.3.6.7.1; and 8.3.6.7.6).

As to claim 15, Wiegand teaches a video decoding apparatus comprising: input means for effecting input of image data containing encoded data of an encoded image, and an image output instruction flag added to the encoded data (3.26 and 3.36); decoding means for decoding the encoded data to generate a regenerated image (3.27); image storage means for storing the regenerated image (8.3.6.5); and image buffer management means for managing every regenerated stored in the image storage means (8.3.6.5), wherein the buffer management means deletes every image stored in the image storage means, in accordance with the image output instruction flag corresponding to an image encoded without reference to any image stored in the image storage means (8.3.6.5; 8.3.6.7.1; and 8.3.6.7.6).

As to claim 16, Wiegand teaches that the image output instruction flag is "0," use is eliminated of every reference image in a buffer, and where the flag is "I," every reference image and every output queueing image in the buffer are deleted (8.3.6.7.6).

As to claim 17, Wiegand teaches a video encoding method comprising: an input step wherein a video encoding apparatus effects input of an image as a target for encoding (3.29); an encoding step wherein the video encoding apparatus encodes the image to generate encoded data (3.31); an image storage step wherein the video encoding apparatus stores an image regenerated after encoded in the encoding step, into image storage means (8.3.6.5); and a buffer management step wherein the video encoding apparatus manages every image stored in the image storage means (8.3.6.5), wherein in the buffer management step, on the occasion of encoding an image encoded without reference to any other image, the video encoding apparatus outputs along with the encoded data, a flag indicating whether use is eliminated of every image previously stored in the image storage means (8.3.6.5; 8.3.6.7.1; and 8.3.6.7.6).

As to claim 18, Wiegand teaches a video decoding method comprising: an input step wherein a video decoding apparatus effects input of image data containing encoded data of an encoded image, and an image output instruction flag added to the encoded data (3.26; 3.33; and 3.36); a decoding step wherein the video decoding apparatus decodes the encoded data to generate a regenerated image (3.27); an image storage step wherein the video decoding apparatus stores the regenerated image into image storage means (8.3.6.5); and a buffer management step wherein the video decoding apparatus manages every regenerated image stored in the image storage

means (8.3.6.5), wherein in the buffer management step, the video decoding apparatus deletes every image stored in the image storage means, in accordance with the image output instruction flag corresponding to an image encoded without reference to any image stored in the image storage means (8.3.6.5; 8.3.6.7.1; and 8.3.6.7.6).

As to claim 19, Wiegand teaches a video encoding program for letting a video encoding apparatus substantialize: a function of effecting input of an image as a target for encoding (3.29); a function of encoding the image to generate encoded data (3.31); a function of storing an image regenerated after encoded, into image storage means (8.3.6.5); a function of managing every image stored in the image storage means (8.3.6.5); and a function of outputting along with the encoded data, a flag indicating whether use is eliminated of every image previously stored in the image storage means, on the occasion of encoding an image encoded without reference to any other image (8.3.6.5; 8.3.6.7.1; and 8.3.6.7.6).

As to claim 20, Wiegand teaches a video decoding program for letting a video apparatus substantialize: a function of effecting input of image data containing encoded data of an encoded image, and an image output instruction flag added to the encoded data (3.26 and 3.36); a function of decoding the encoded data to generate a regenerated image (3.27); a function of storing the regenerated image into image storage means (8.3.6.5); a function of managing every generated image stored in the image storage means (8.3.6.5); and a function of deleting every image stored in the image storage means, in accordance with the image output instruction flag

corresponding to an image encoded without reference to any image stored in the image storage means (8.3.6.5; 8.3.6.7.1; and 8.3.6.7.6).

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Setoguchi et al is cited.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yon Couso whose telephone number is (571) 272-7448. The examiner can normally be reached on Monday through Friday from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen Lillis, can be reached on (571) 272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YJC

February 6, 2007